

THE IMPACT OF COVID-19 PANDEMIC ON ACCELERATING THE GROWTH OF E-COMMERCE

PARMJIT KAUR¹ & RAJASWIBATISH²

¹Maitreyi College University of Delhi, India

²Jesus and Marry College University of Delhi, India

ABSTRACT

The novel Corona Virus spreads primarily through contact with an infected person or when a person comes in contact with a surface that has the virus on it, the best way to protect one against it is to stay at home. This has hiked the global usage of online shopping. The outbreak has infected masses and is known to have changed people's shopping habits as they are afraid to shop outdoors. E-commerce is the concept of doing business online with the help of the internet and is a term inclusive and broader than 'online shopping'. E-commerce has experienced rapid growth since the humble, despite the sudden beginning of the lockdown imposed due to the pandemic. The study aims espiteon the e-commerce industry boost during COVID-19 pandemic. The main concern of the government is to reduce the impact of COVID-19 by imposing restrictions on the movement of people and hence to break the covid infection chain. This led to a manifold increase in the usage of internet facilities, be it in the field of teaching, grocery shopping, and entertainment. The people who did not prefer shopping online were left with no choice but to avail themselves e-commerce facilities. This was one of the main reasons the E-commerce industry witnessed rapid growth. The rising number of COVID-19 cases led to panic amongst the people to go the hospitals and therefore they preferred taking consultations from the doctors virtually, which was a new concept and a contributor to the growth of the e-commerce industry. The online food industry was another notable sphere, since, this sector comes under the category of essentials, it worked 24x7 and helped people to get food even during the peak of the COVID-19 crisis. Many NGOs joined hands with online service providers to cater to the masses. One of the many advantages of this industry's growth is that it has led to the quality of lifestyle, as people can avail themselves services at their doorstep.

KEYWORDS: COVID-19, Corona Virus, Growth, E-Commerce, Industry, Sector, Business, Management, Shopping, Food, Medical, Lifestyle, Services, Pandemic, Online Shopping, Government & Economy

Received: Feb 20, 2022; **Accepted:** Mar 10, 2022; **Published:** Mar 24, 2022; **Paper Id.:** IJAFMRJUN20221

INTRODUCTION

India was completely lockdown from 24-31 March 2020, the pandemic has restricted the working of the economy. The restrictions imposed by the COVID-19 pandemic has led people to stay indoors and replicate routine habits in an online mode. Resultant, the E-commerce industry has seen a great breakthrough and boom. Consumer behaviour has seen a notable change in the pandemic. E-commerce is the most convenient and the most chosen way to purchase goods not just products but even services. Accessibility to a large variety to choose from and getting it delivered at doorsteps being some of the key factors accelerating this growth.

The E-Commerce industry has seen a growth of 17% in the year 2020 and it is also reported that the industry will see a growth of 84% in the next four years. For example, Amazon is a company that benefited from the pandemic. The company reported record profit in July 2020 though they had faced a very hard time in April

2020. The Indian E-Commerce industry will witness 21% growth annually in the coming four years. Not just India but around 41 countries will see similar growth in their E-Commerce industry. The industry also offers a platform for new businesses to evolve and provides a global virtual place wherein sellers and potential customers can meet without any restrictions and engage in mutually profitable business.

REVIEW OF LITERATURE

SINGH, J. & SINGH J. (2020) in the research paper "COVID-19 and its impact on Society " emphasizes how coronavirus has adversely affected the lives of individuals directly or indirectly. It has brought a drastic change in people's social life as many countries have declared unprecedented lockdowns and emergencies which has resulted in the shutting down of schools, colleges, religious places, malls, pubs, etc. It has created an environment of fear, anxiety and stress among the people mainly due to extreme isolation and lockdown measures.

On the same lines, the paper "Scalability of e-commerce in the COVID-19 era" **DINESH, S., & MUNIRAJU, Y (2020)** shows how COVID-19 has caused the e-commerce market to expand because of the hesitation of consumers to shop from offline stores. The sales from the e-commerce platforms have skyrocketed compared to the pre-lockdown order volumes. Even in countries like India, where it is difficult that online stores could completely take over, offline retailers are trying to become smarter with the adoption of smart technologies and indulging in various kinds of online plans of action.

Sufficient data can be found to compare the online sales as well as the offline or in-store sales and their levels pre-COVID-19 and during COVID-19 from the resource "How the COVID-19 Pandemic has accelerated the shift to online spending" **DALGLEISH, R. (2020)**

The paper "The effect of COVID-19 spread on the e-commerce market" also shows a similar effect. The aforementioned paper draws a conclusion based upon the study of the five largest e-commerce companies in the world. Studies have shown that the German company Zalando is the most influential variable in calculating cumulative deaths. **ELRHIM, M. A., & ELSAYED, A. (2020)** aimed to investigate the factors that affect the consumer's online spending habits. The study reveals that it depends on a variety of factors; demographic factors, social factors, payment options are a few to name.

SHARMA, K. (2020) in the paper "Surge in E-Commerce Market in India After COVID-19 Pandemic" also states that the shift from offline to online mode has caused an increase of around 17% in online retailing when compared to the figures of 2019 and will rise further. Platforms like Zomato, Swiggy, Flipkart etc were able to cater to the increasing demands of customers by typing up with several shops and increasing the number of delivery boys. This sudden increase in demand was found to be due to the consumers' expectation that there will be a lack of availability and to avoid physical visits to shops to refrain from contacting the coronavirus. The paper shows a region wise growth in e-commerce industry stating that tier III cities saw the fastest growth of around 53% in e-commerce business in India.

To look deeper into the daily online needs, **GRASHUIS, J. ET AL. (2020)** in the paper "Grocery Shopping Preferences during the COVID-19 Pandemic", came to a conclusion that COVID-19 cases have influenced the grocery shopping preferences of most people. More and more people have shifted to online delivery services for their daily household needs. The survey conducted in 2020 concluded 158% increase in the number of households that utilize online grocery delivery services for their daily needs. This surge in online grocery delivery services could be explained mainly by people fearing COVID-19 and being in an unsafe scenario. However, this research was limited to the chosen metropolitan

cities only and before the lifting of lockdown.

To throw light on the lockdowns imposed, "The cost of COVID-19 crisis" draws a conclusion that the COVID-19 pandemic resulted in major economic downturns around the world with major dips in the employment levels hence affecting the level of personal income. **COIBION, O. ET AL. (2020)** aimed to find out the cause of the dramatic decline in employment and consumer spending. Estimates have shown that this economic catastrophe is the outcome of the lockdowns. The households expect normalcy to return within six months, yet there are studies suggesting that the damage may be rather persistent.

The resource "Demand versus supply: Price adjustment during the COVID-19 pandemic" **BALLEER, A. ET AL. (2020)** gives empirical evidence on the relative importance of supply and demand forces during the COVID-19 crisis. Fundamental predictions are made about the emergence of inflationary supply shocks and deflationary demand shocks. The resource discusses how planned price changes of firms and studies that forces working on supply and demand coexist, but demand deficiencies dominate in the early phase of the COVID-19 crisis. The resource highlights the importance of weak demand during the COVID-19 crisis.

JAIPURIA, S. ET AL. (2020) paper 'The Impact of COVID-19 on Tourism Sector in India' studies the tourism industry through various scenarios and concludes that an industry like tourism has been severely affected by the COVID-19 pandemic and the impact will stay for a long time making the industry less attractive for job seekers as well owing to the fact that COVID-19 has restricted traveling across the globe. The paper also stresses the impact that such a shift in demand for jobs has on a nation, tourism being one of the biggest contributors to a nation's GDP. The government is likely to have invested a huge amount in this industry in addition if demand falls there will not be proper utilization of resources which will affect the employment rate of the tourism industry. It also proposes a decision that can help the industry come out of the current scenario.

Similarly, in the paper 'The impact of COVID-19 pandemic on hospitality and mitigation mechanism in Ethiopia review' **BIWOTA, S. M. (2020)**, it has been observed that the tourism and hotel industries have witnessed a rapid negative impact due to the ongoing coronavirus pandemic. The aforementioned paper also suggests various methods to help the tourism industry gain back its profits, like it has been recommended to promote flexi services instead of value added services. The paper also draws a conclusion that Ethiopia as a country has been more affected in terms of the hospitality and tourism industry. It suggests that the damage that COVID-19 has created can be reduced to some extent by resolving the short problems first and then hinging on to long term planning.

"Impact of COVID-19 on consumer behaviour: will the old habits return or die" by **SHETH, J. (2020)** concluded that consumer behaviour has been significantly disrupted as a result of the lockdown and social distancing used to fight the COVID-19 virus. All consumption is constrained by time and place. Consumers have learned to improvise in inventive and imaginative ways due to time versatility but position rigidity. People now work, study, and relax at home, blurring the lines between work and personal life. Since the customer is unable to visit the store, the store must travel to the customer. Consumers that have been placed under house arrest for an extended period of time are more likely to follow newer innovations that make work, research, and consumption more convenient.

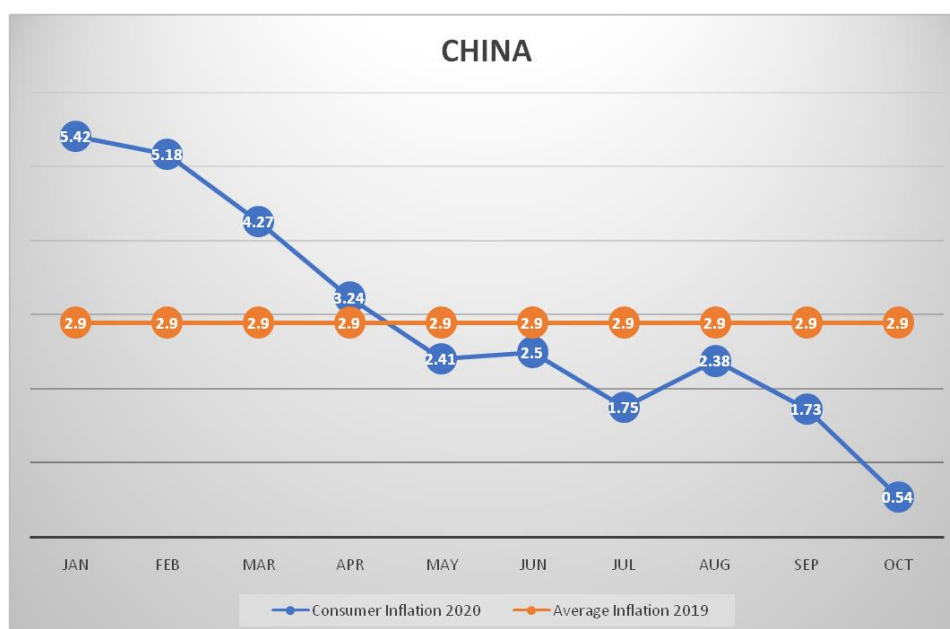
On another note, the study conducted on 'Impact of COVID-19 pandemic on education in India' by **JENA, P. K. (2020)** draws the conclusion that the COVID-19 crisis has immensely impacted the education sector of India. It has been

observed that the possibility of open and distance learning has been explored by various stakeholders of education. Studies have shown that this method of teaching has benefitted the students on a very large scale. Hence, it is being considered to continue with the online mode of teaching even after the lockdown restrictions are relaxed. However, this study focuses mainly on the situation of India.

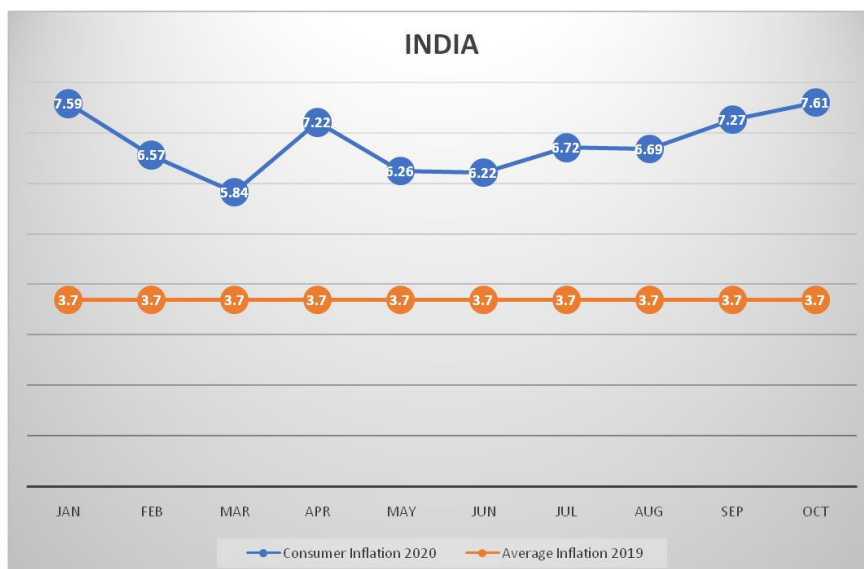
GROWTH OF THE E-COMMERCE INDUSTRY AND IMPACT ON INFLATION

Among the many ways in which COVID-19 pandemic has affected the economy, the most peculiar is the impact on inflation. Even before the pandemic, India had been experiencing inflation. Consumer inflation had crossed the upper tolerance level of 6%. While in most countries, the inflation rates had eased during the pandemic, Indians did not see it going below 6%. The chart below shows the comparison of the movement in monthly inflation numbers for three countries including India, one advanced economy (Japan) and one emerging market (China).

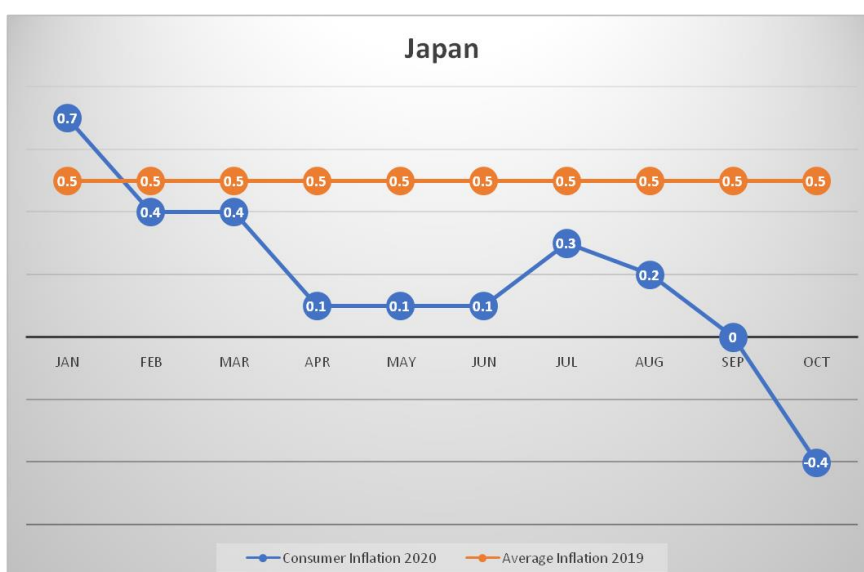
The intent here is to observe firstly, the movement in inflation through the lockdown and relaxation phases, and secondly, inflation in 2020 vis-a-vis the 2019 average in the respective country. It is to be kept in mind that the intent behind this is not to compare the inflation of India with that of the other countries. In graphs, blue line represents monthly consumer inflation in 2020 and the orange line represents average inflation in 2019.



Graph I: Consumer Inflation 2020 Vs Average Inflation 2019 In China.



Graph-II: Consumer Inflation 2020 Vs Average Inflation 2019 In India.



Graph-III: Consumer Inflation 2020 Vs Average Inflation 2019 In Japan.

OBSERVATION

It was observed that in India and China inflation came down for a short period of time after which it sustained again in different degrees. Only in Japan deflationary conditions had sustained for a longer period, implying low rates of inflation. When compared to China and Japan, the dip in inflation was below last year's average inflation level, whereas India faced a considerably higher rate of inflation as compared to the previous year. **SOUMYA KANTI GHOSH**, Chief Economist State Bank of India, mentioned that the steep fall in retail inflation in April to 4.29% was deceptive.

It was also observed that the consumer price inflation noticed a decline in April, due to a decrease in the food CPI. It was further stated that the core inflation exclusive of food and energy prices has risen sharply during the COVID-19 pandemic. **SOUMYA KANTI GHOSH** elaborated that there were three inflationary concerns that could squeeze discretionary consumption: rising cost towards healthcare, higher fuel and essential commodity prices.

As far as the impact of immediate growth of e-commerce industry on inflation, during the pandemic is concerned, it has been observed that this growth in e-commerce industry contributed to lower prices and hence a low rate of inflation. An older study revealed that an annual increase by 1% in the share of people using internet decreases the annual inflation rate in the range 0.04 – 0.1% conducted by **YI AND CHOI (2005)**.

Online sales have been projected to grow up to 599.2 billion USD by 2024. According to studies, the COVID-19 outbreak saw e-commerce sales spike 25% in March 2020. The instantaneous and abrupt rise in the growth of the online industry during the pandemic is asserted for the simple reason that is accessibility and convenience. With the restriction on movement, people have resorted to online sites not only because they are safer than actually going to offline destinations but also because they have access to it 24 hours a day which also gives them time to plan and make informed decisions. Since the shutdown of so many stores in the month of March and May 2020, consumers were left with no choice but to use internet to buy the required products. Food and grocery delivery centres witnessed the largest increase in online sales, with the sales of August 2020 being nearly doubled, compared to February 2020.

Other relevant stores witnessed a large uptake in online sales from April 2020 onwards with total online sales peaking at almost double February levels. These levels were maintained through June and July 2020 and often experienced increases. Household goods stores reported a similar pattern and its online sales saw an uptake of about 70% when compared to pre COVID levels.

Despite huge online sales surges, the clothing sector saw a fall in online sales during the COVID-19 crisis with the amount of sales declining to about one third in April 2020, in comparison to February 2020. However, sales began to grow in June 2020 as more stores returned to online trading and by August 2020 sales were nearly a fifth higher than pre-COVID levels. As a fact, this field has not seen the large boost in online sales witnessed in other areas of the retail sector. Looking at in-store sales, the retail sector has been the worst hit among the rest. At the peak of the pandemic, the amount of sales declined to about four-fifths. Although the offline business has seen an unfortunate fall in sales, the in-store sales of department stores did not witness as large a fall as other sectors. This is due to many stores remaining open even during lockdown because of the wide array of essential products and necessities they sell.

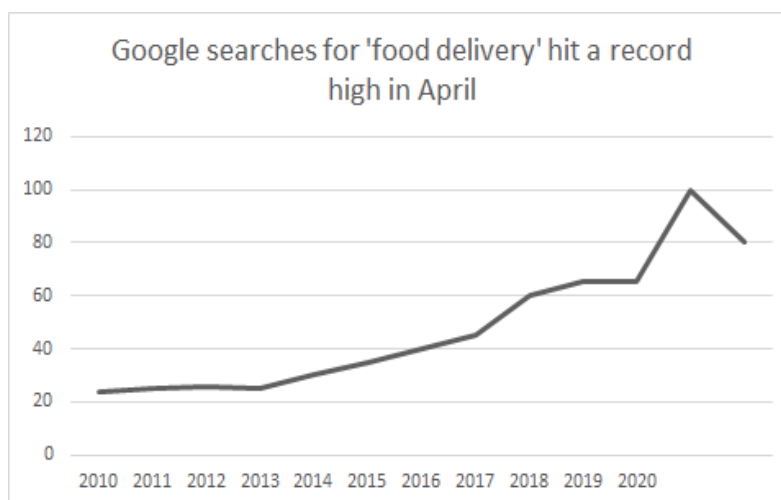
It is clear that during the pandemic, the majority of firms were adversely affected, whilst it is also true that about 10% of firms were positively affected by the crisis. Services, travel arrangements, retail, leather industry and more were negatively impacted whereas pharmaceuticals, supermarkets, food industry strongly benefitted. To assess the role of several demand and supply shifters it is crucial to understand whether firms stopped production or (partly) closed, lacked intermediate inputs, rely on imports, or experienced changes in order books etc. Research shows that negatively affected firms experience both adverse demand and supply shifts.

According to surveys, adverse demand faced by firms dominates factors such as the severity of disruptions to foreign and domestic demand, liquidity problems, regulations related to health measures, storage or supply chain problems, or lack of personnel due to the pandemic. Firms differentially exposed to COVID-19 display very similar dynamics in planned price changes up to March 2020. Relative to firms with no or only weak exposure to COVID-19, a rise of up to 10% in the probability of planned price decreases is estimated. Conversely, positively exposed firms are predicted to display approximately 7% rise in planned price increases and are less likely to plan price decreases.

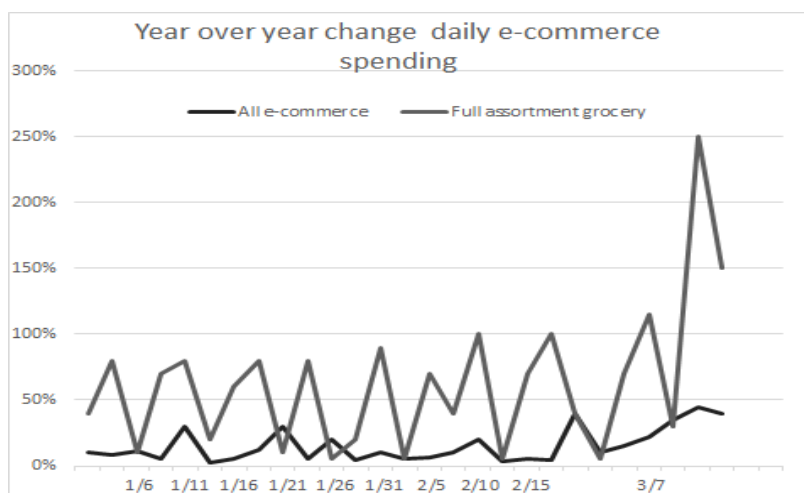
IMPACT OF THE GROWING E-COMMERCE INDUSTRY ON GENERATING EMPLOYMENT

Online Grocery Shopping is something that has been clicking with consumers during the pandemic. According to the Economic Times published in early 2020, it was reported that India's online grocery market, could even go beyond \$3 billion in 2020 sales. This would be a 76% increase compared to the previous year. Experts point out that this spike in demand will sustain for the year.

CHRIS BENNER, a professor at UC Santa Cruz, through his report, comments that the customers have started paying for tasks that they once used to do themselves without paying anyone. This has led to the creation of new jobs for doing things like fulfilling orders, providing pick-up and delivery services for groceries, prepared food etc. Technology has facilitated the acceleration of e-commerce and people have very much made a shift. Consequently, the food delivery jobs have been increasing during the COVID-19 pandemic. In the United States, online grocery sales have increased from 2% to 10% (predicted) by the end of the year. A recent survey shows about 45% of all households (55.5 million) utilized the online grocery pick-up and delivery service. Undoubtedly, the growth in the online food/grocery delivery service sector has provided an important source of income for workers during such times when unemployment has soared. However, it must be pointed out that these jobs offer very little stability and even compensation.



Graph IV: Google Searches for Food Delivery.



Graph V: Daily E-Commerce Spending.

As the effect of the restrictions imposed by the COVID-19 pandemic, the working of the employment sector was also restricted. While some sectors went into a complete shutdown the labour or workforce associated with these sectors also became jobless. The tourism industry is one of the worst-hit in these sectors. While the pandemic completely swept away tourism, people associated with this sector became jobless impacting the economy of the nation as well. Though the tourism industry is affected by disruptive events like terrorist attacks, natural calamities or even the epidemic outbreaks in the past has not affected an economy as the COVID-19 pandemic. With many countries sealing the borders to contain the spread of the virus and flight services being reduced to operate just for evacuation, tourism completely declined. There was a decline in tourists at the rate of 1-3% when compared to 2019 rather than an expected hike of 3-4%. The World Travel & Tourism Council had predicted a loss of US\$ 2.21 trillion and 75 billion jobs in the year 2020, the figures came to US\$ 4.5 trillion and 62 billion respectively. Which is a 49.1% and an 18.5% decline when compared to 2019. The tourism industry that includes airlines and hotels shrunk to almost 50% which is a very crucial loss of jobs and revenue. The airline sector saw a loss of around US\$370 billion with just 1.8 million people taking flights in 2020 when compared to the 4.5 million in 2019. The hotel industry marked a loss of around US\$ 125 million making it the worst year in history for the industry.

When it comes to employment, there has been a massive job loss in these industries. The airline sector saw a decline in the total number of jobs from 46 million to 41.3 million. 4.2 million jobs have been lost in the tourism industry and 2.3 million being in the hospitality sector. Such a massive loss in jobs have made these sectors less attractive to people seeking jobs. Not just the fact that such industries cannot function in this situation but also due to fear of contracting the disease. The United Nations has predicted a loss of \$910 to \$1.2 trillion in the tourism sector, hence, risking millions of jobs. The lack of security also led people to quit their jobs in the sector and search for more secure employment. From this, we can conclude that while some sectors prospered during the pandemic attracting job seekers, some sectors went into terrible losses which might need months to recover making them less attractive to job seekers.

IMPACT OF E-COMMERCE ON QUALITY OF LIFESTYLE

Due to COVID-19, lockdown policies prompted new buyers to seek out online channels to bypass crowded retail shops, and previous cyber-customers' shopping frequency has risen, resulting in a slew of new companies that did not exist previously.

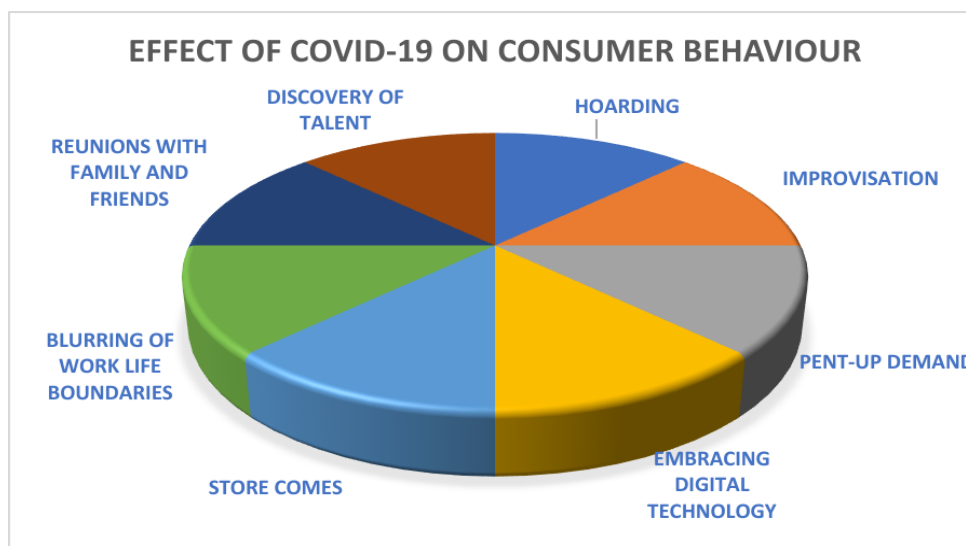
Such campaigns have been introduced by companies that have an online presence. E-commerce is now the only way to do business. For many conventional brick-and-mortar stores, this is a viable choice.

In Germany, 44 percent of online shoppers said their quality of life has improved because it is more enjoyable (41%), less frustrating (63%), and helps them to better control their time (81%). A whopping 75% of the respondents were confident that online shopping improved the quality of life for those with restricted access to brick-and-mortar stores.

Perhaps most intriguing was the perception of online shopping as a "emotional experience." Two-thirds of those polled are looking forward to receiving their kit. About half of those polled said the feeling was like "receiving a gift," and that when their online purchase is made, they feel "emotionally heavy."

The study's key finding is that e-commerce has entered mainstream society. People of all ages are increasingly turning to this easy alternative to the stressful obstacle course of physical shopping. E-commerce is making our professional and personal lives easier," says Jürgen Gerdes, member of the management board and head of Deutsche Post DHL's MAIL Division. E-commerce must be convenient for all parties involved, including both sellers and buyers. The

consequence for us is a strong directive from our consumers: we must also direct our customers in the digital world, enabling them to have easy and secure internet access.”



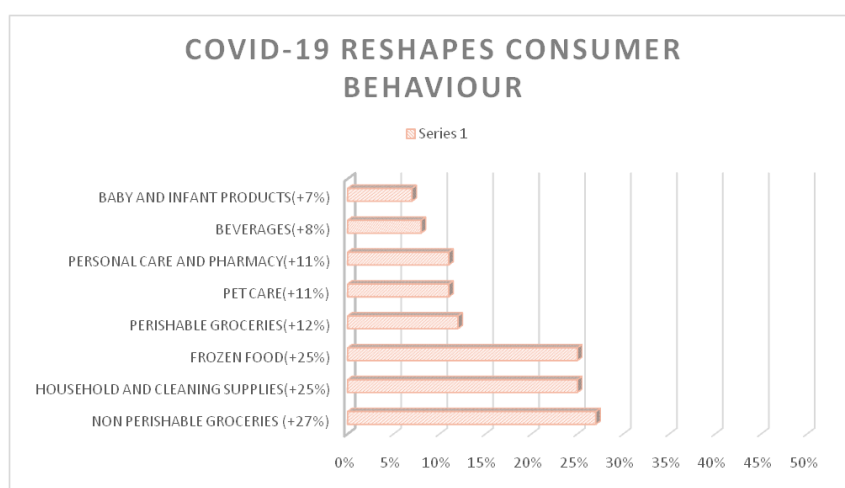
Graph-VI: Effect of Covid-19 on Consumer Behaviour.

The figure above outlines eight immediate consequences of the COVID-19 pandemic on consumer behaviour and consumption.

- **Hoarding** – Consumers were stockpiling vital goods for everyday use, causing shortages and stockouts. Toilet paper, bread, water, meat, disinfecting, and cleaning supplies were all included.
- **Improvisation** – Existing behaviours are discarded in the process, and new consumption methods were created. Consumers’ innovation and resilience were unleashed by the coronavirus for such traditional events as weddings, as well as funeral services on the sidewalk and funerals at Zoom as an alternative to conventional location-based events.
- **Pent-up demand** – The general tendency during periods of crisis and uncertainty was to delay the purchasing and use of discretionary goods and services. This is often associated with large purchases, automobiles, houses, and appliances are examples of durable goods. It also includes non-essential facilities such as concerts, sports, restaurants, and lodging.
- **Embracing digital technology** – Consumers have embraced a variety of emerging innovations and applications out of necessity. Zoom video services are an obvious example.
- **Store comes home** – Consumers in countries such as India, South Korea, China, Italy, and others were unable to go to the supermarket or shopping malls due to full lockdown. Rather, the supermarket reached their house.
- **Blurring of work-life boundaries** – Consumers were kept locked up in a house in small area of room and with too many distinct things, such as working, studying, shopping, and socialising activities that people engaged in.
- **Reunions with friends and family** – One of the most significant effects of the coronavirus was the increased desire to contact distant friends and family, partly to ensure that they were safe, but also to exchange stories and experiences.

- **Discovery of talent** – People have played with recipes, exercised their talent, and performed innovative and new ways to play music, share learning, and shop online with more free time at home.

During COVID, going to the bank to perform cash transactions or withdraw money, or traveling to the market to buy products and needed commodities becomes more difficult, resultant internet transactions become an important component of the society. With the extensive use of the internet, the educational levels and lifestyle improved, country's economic growth increased, e-commerce and online shopping in India are attaining spectacular and extraordinary growth. Electronic commerce approaches and technologies are in high demand and the economy is exploding. E-commerce sales are increasing at a pace of 20% to 25% each year, showing a significant shift in buying patterns. Through more competition, cost savings, and changes in seller pricing behaviour, the continuous spread of Internet commerce might put downward pressure on inflation.



Graph-VII: Bar Graph Depicting Shift in Consumer Behaviour.

ANALYSIS

The growth in the online food/grocery delivery service sector because of people's inclination towards it has provided an important source of income for workers during pandemic times, however, such jobs offered very little stability. It was found that while certain sectors earned a record profit amidst the pandemic and certain sectors like the tourism sector incurred huge losses. There were tremendous job losses in such sectors due to pandemic and lack of job security made jobs in such industries less attractive to job seekers.

Evidently, the majority of the firms experienced adverse demand and supply shifts during COVID-19 pandemic. Demand deficiencies dominate over supply forces and therefore negatively impacted firms planned price decreases. The growth in the E-commerce industry contributes to lower prices and hence a low rate of inflation. Most countries witnessed a decline in their inflation rates, during the COVID-19 pandemic, but developing countries like India observed an increase in its rate of inflation due to the COVID-19 crisis.

The Internet has become an inseparable part of lives in all facets of everyday life and has a diverse influence on social activities. Through more competition, cost savings, and changes in seller pricing behaviour, the continuous spread of Internet commerce might put downward pressure on inflation. The e-commerce industry has led to an increase in the quality of lifestyle. People are now able to avail services at their doorstep which has made their lives fairly easy. No

conveyance charges, time conservation due to the usage of online services are some other factors that have led to the quality of lifestyle.

SUMMARY AND CONCLUSIONS

Online commerce has evolved tremendously over the years, and there is still plenty of space for expansion. Due to client apprehension about shopping in brick-and-mortar establishments, COVID-19 has pushed the e-commerce business to expand. Customers were obliged to buy online during the epidemic due to concerns about buying in physical businesses and limitations on transportation. For consumers, internet shopping provides access to a wide range of products, while for sellers, it allows them to reach a big geographic region while using minimum resources. In comparison to pre-lockdown order quantities, e-commerce platform sales have increased dramatically. Customers are increasingly purchasing kitchen staples, personal care goods, and food online, according to the findings. The need for necessities and hygiene items is growing, and online platforms must guarantee that client demand is supplied successfully in order to keep delighted clients. Customers are progressively transferring their purchases online, highlighting the importance of online platforms focusing on enhancing customer experience. This is because growing revenue alone will not guarantee long-term growth. In India, internet merchants would need to invest more in infrastructure and seek out successful partnerships with local businesses. Major firms in the country's e-commerce business may be able to do this more quickly. Smaller businesses, on the other hand, would have to focus their energy and resources on satisfying rising customer demand. In the 'new normal' scenario, offline retail businesses would also have to reinvent themselves in order to attract clients. Online businesses are unlikely to totally replace traditional businesses in nations like India, resultant offline stores will need to employ smart technology to become smarter. Online shops too need to keep innovating and devising new initiatives to keep their customers engaged. Furthermore, platforms must maintain the safety and security of personal and financial information of customers who buy on their websites by using appropriate monitoring mechanisms. This would increase consumer trust by boosting the confidence of both existing customers and first-time users to make transactions online.

REFERENCES

1. Singh, J. & Singh, J. (2020): *COVID-19 and its impact on Society*. Online edition: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3567837
2. Dalglish, R. (2020): Online edition: <https://blog.ons.gov.uk/2020/09/18/how-the-covid-19-pandemic-has-accelerated-the-shift-to-online-spending/>
3. Sharma, K. (2020): *Surge in E-Commerce Market in India After COVID-19 Pandemic*, Online edition: https://www.researchgate.net/publication/346964245_A_SURGE_IN_ECOMMERCE_MARKET_IN_INDIA_AFTER_COVID-19_PANDEMIC
4. Grashuis, J. et al. (2020), *Grocery Shopping Preferences during the COVID-19 Pandemic*, Retrieved from
5. <https://www.mdpi.com/2071-1050/12/13/5369>
6. Balleer, A. et al. (2020), *Demand versus supply: Price adjustment during the COVID-19 pandemic*, Retrieved from
7. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3642392
8. Jaipuria, S. et al. (2020) *The Impact of COVID-19 on Tourism Sector in India*, Retrieved from
9. <https://www.tandfonline.com/doi/full/10.1080/02508281.2020.1846971>

10. Coibion, O. et al.(2020) *The cost of COVID-19 crisis*, Retrieved from
11. <https://www.nber.org/papers/w27141>
12. Elrhim, M. A., &Elsayed, A. (2020) *The Effect of COVID-19 Spread on the e-commerce market: The case of the 5 largest e-commerce companies in the world*
13. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3621166
14. Dinesh, S., & MuniRaju, Y. (2021) *SCALABILITY OF E-COMMERCE IN THE COVID-19 ERA*
15. https://www.granthaalayahpublication.org/journals/index.php/granthaalayah/article/view/IJRG21_A01_5042
16. Biwota, S. M. (2020) *The Impact of COVID-19 Pandemic on Hospitality (Tourism& HotelSector) and Mitigation Mechanism in Ethiopia* review <https://ideas.repec.org/a/adp/artoaj/v25y2020i1p21-27.html>
17. Jena, P. K. (2020). *Impact of pandemic COVID-19 on education in India* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3691506
18. Sheth, J. (2020). *Impact of COVID-19 on consumer behavior: Will the old habits return or die?* <https://www.sciencedirect.com/science/article/pii/S0148296320303647>
19. Nguyen, Dongthi Thao, and Thu Chung Kieuthi. "New Trends In Technology Application In Education And Capacities Of Universities Lecturers During The Covid-19 Pandemic." *International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)* 10 (2020): 1709-1714.
20. Almetwally, Ehab M., and Gamal M. Ibrahim. "Discrete alpha power inverse Lomax distribution with application of COVID-19 data." *Int. J. Appl. Math* 9.6 (2020): 11-22.
21. Roy, Ashwini. "The COVID-19 Shadow Pandemic: Domestic Violence in the World of Work-Private Sector." *International Journal of Humanities and Social Sciences (IJHSS)* (2021).